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AUTHOR Wheeler-Meehan, Linda; Hiatt, Diana Buell
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ABSTRACT

Changes in the percentage of women graduating from six male-intensive professions during 1960-1980 were analyzed, and the opinions of professional school deans about the causes of these changes were surveyed. The professions were medicine, veterinary medicine, dentistry, law, engineering, and architecture. Data were obtained from the National Center for Education Statistics regarding degrees conferred in these professions during 5-year increments. A 32-item questionnaire was developed and sent to deans at 464 professional schools. A total of 336 responses were obtained. In 1960 the percentage of women graduates for all six professions was 1.4 percent compared to 24 percent in 1980. The legal profession had the greatest increase in women graduates, graduating 2.5 percent women in 1960 and 41 percent in 1980. The greatest increase of women occurred during 1975-1980, after the enactment of legislation regarding women's rights. The most influential factors reported by deans included: increased number of female applicants, increased cultural acceptance of female professionals, increased social sanctions making the combination of a profession and family more acceptable, and positive female role models. The questionnaire items and responses are included. (SW)

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FACTORS RELATED TO INCREASE IN WOMEN GRADUATES FROM PROFESSIONAL SCHOOLS IN U.S., 1960-1980

LINDA WHEELER-MEEHAN

and

DIANA BUELL HIATT

Pepperdine University

Malibu, CA

U.S. DEPARTMENT OF EDUCATION
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FACTORS RELATED TO INCREASE IN WOMEN GRADUATES
FROM PROFESSIONAL SCHOOLS IN U.S., 1960-1980

Purpose

This study analyzed the changes in the percentage of women graduating from six male-intensive professions, 1960-1980, and surveyed deans of professional schools to ascertain which factors they felt attributed to these changes.

Perspective

The dynamic economic structure and philosophical and political framework of 20th century America has increased public awareness of women's changing roles in nearly every facet of daily life. Industrialization, two world wars and two Asian wars have triggered major changes in the participation of women in the American work force.[1] The 19th Amendment in 1920 opened the door to women's political involvement with the right to vote.

The period 1960-1980 was a time when many minority groups asserted their demands for equality of opportunity in the labor force. As one of these minority groups in the labor force, women pressed for the right to work in all occupations. High-paying professional occupations, which had been bastions of male dominance, were perceived by women's groups as sources of discrimination.

Within the context of this century, the Sixties brought an intense challenge to traditional ways of thinking, believing and living in America. John F. Kennedy became the first Catholic President and charismatically attempted to unify the nation in a quest for ubiquitous equality. The Civil Rights Act of 1964 began a posthumous legislative tidal wave based on that

lauditory goal. At that point, racial minorities and women began political movements aimed at their inclusion in the white male-dominated society.[2] The Act gave political clout to minorities and women specifically in issues of employment.

In 1972, women's rights were again bolstered through the Education Amendments of the Civil Rights Act of 1964. Title IX of this legislation outlawed discrimination against women by educational institutions receiving federal funds. Violation of Title IX portended the loss of monetary support to the institution from federal resources. This was the legislative turning point for women.[3]

An additional factor which has dramatically affected the second half of this century is the advent of birth control. By the mid-1960's women were beginning to limit their fertility. Family planning had a two-fold result. It was a socially reinforced method of achieving "Zero Population Growth" to avoid the drain on national resources. More personally, it put the decision to have children in women's hands, thus offering greater control over their future. A sense of personal freedom was increasingly enhanced by changing attitudes about women's roles.[4]

These and other changes reflect a pendulous transformation in the value structure of 20th century America. Prior to the Sixties, women's primary lifework was within the familial domain.[5] Subsequently, American women have been offered new opportunities, formulated new goals and succumbed to new pressures. In the majority of cases, these transmutations have expanded women's responsibilities to encompass working outside the home.[6]

Participation in the work force has reflected an unequal balance between men and women. A plurality of poorly remunerated, low-status and dead-end jobs have historically been held by women.[7] This appears to be related to an American belief system that certain types of work are considered appropriate for

males, others appropriate primarily for females. This phenomenon is known as "occupational sex-typing."[8] Speaking primarily of Caucasions, Hiatt regards this situation to be attributable to the decision-making process within the family structure.[9] Traditionally, men have assumed the leadership roles and made the major decisions; women have carried them to completion. She suggests that the job market absorbed the transference of this condition and covertly, if guilelessly, spawned a separation of males and females in the designation of work roles. The outcome of this occupational dichotomy is a pyramidal system where men secure highly remunerative positions and jobs in the esteemed professions.[10]

In 1970, women comprised 5% of the total number of all professionals.[11] In the cases where women are trained in the professions, there still remains a separation of selection based upon appropriate roles. The preponderance of female professionals are in the "helping" occupations: teaching, social work and nursing.[12]

In spite of federal legislation supporting equal access to education, professions such as physician, lawyer, engineer and scientist have remained relatively impervious to women. These types of careers are highly regarded by American society.[13] They have the additional benefit of offering reasonable financial security and job availability. To this researcher, professions which are historically male-intensive offer a unique population for assessing the degree of impact of selected factors in the elimination of sex discrimination in education.

For the purpose of this study, six highly esteemed and remunerated professions have been selected. They are: physician, veterinarian, dentist, lawyer, engineer and architect. This configuration consists of three health-related and three non-health-related occupations. In 1960, the Bureau of Labor Statistics reported that none of these professions had more than 7% of female practitioners.[14]

The intent of this study is threefold. First, it will look at the number of female graduates in six professions, both individually and collectively, from 1960 through 1980. Second, it will divide those data by region to determine the impact of geographical location as a possible factor in educational attainment for women. Third, by surveying deans of selected schools, the existence of any factors which may have contributed to significant gains in the percentages of women graduating from professional training programs will be ascertained.

Methodology and Data Collection

This study selected the six highest-paying, male-dominated professional occupations which required graduation from accredited professional colleges for entry into the profession. These occupations were medicine, law, architecture, dentistry, engineering, and veterinary medicine. All colleges which granted degrees in these six professions and which were in operation on mainland America on or before 1960 participated in the study. 464 professional colleges were included.

Data were collected from the National Center for Educational Statistics regarding degrees conferred in institutions of higher learning. This data were analyzed to determine changes in the percentages of women graduates from each of the six professions selected during five-year increments, 1960-1980.

A 32 item questionnaire was developed, pilot-tested, and sent to the deans of the 464 professional schools included in this study. Deans were selected since they would be the most knowledgeable regarding the influence of the selected factors. The selected factors were gleaned from literature and research on forces affecting women in higher education.

336 or 72% of the deans completed the questionnaire. Response to items on the questionnaire were analyzed by profession, aggregate of professions, and geographic region using Chi-square. The deans could respond to each item using a six-point scale, 0 - 5, with 0 meaning no influence and 5 meaning major influence.

Findings

All the professions showed significant gains in the percentage of women graduates when 1960 was compared with 1980. In 1960 the percentage of women graduates for all six professions was 1.4% compared to 24% in 1980. The legal profession had the greatest increase in percentage of women graduates during that period, graduating 2.5% women in 1960 and 41% in 1980.

Table 1

PERCENTAGE OF WOMEN GRADUATING FROM PROFESSIONAL SCHOOLS, 1960 to 1980

	1960	1965	1970	1975	1980
LAW	3%	4%	6%	16%	41%
VERTERINARY MEDICINE	2%	4%	8%	15%	34%
MEDICINE	5%	6%	8%	13%	23%
ARCHITECTURE	1%	4%	6%	14%	18%
DENTISTRY	1%	1%	1%	3%	14%
ENGINEERING	0%	1%	1%	2%	10%

Table 1 indicates that the five-year increment between 1975 and 1980 was the period of greatest increase of women graduating from these professional schools. Since this is the time following the enactment of the legislation regarding women's rights, these changes might be attributed to the enforcement of this legislation.

Table 2 demonstrates the aggregate responses by all the deans responding to the thirty-two items on the questionnaire. These finding suggested that enforcement of any of the women's rights legislation had no to little influence on the increase of women graduates. These deans reported the following to be the most influential factors affecting the increase in women graduates that period:

1. Increased number of female applicants;
2. Increased cultural acceptance of female professionals;
3. Increased social sanctions making the combination of a professional career and a family more acceptable;
4. Female students served as positive role models for aspiring applicants;
5. Positive protrayal of female professionals in the media; and
6. Acceptance of female students by male colleagues and faculty.

Factors which the deans reported to have the least influence on women graduating were the following:

1. Declining enrollment;
2. Pressure from other institutions, agencies and faculty or student groups (all four items received low ratings); and
3. Female students' participation in organized team sports.

75% of the responding deans had held their positions 8 - 10 years prior to the date of this study, 1982-83, yet none of the deans felt than any single piece of women's rights legislation had more than little effect at their school. This was true for both public and private school deans.

TABLE 2

AGGREGATE FREQUENCY REPSONSES
TO THE QUESTIONNAIRE

	None	Very Low	Low	Moderate	High	Very High	Percent Response Represented
1. Geographic Location	81	38	30	60	33	13	87.5%
2. Expanded Program	56	30	38	72	42	30	89.3%
3. Increased Female Applicants	1	1	4	20	83	217	98.2%
4. Increased Female Faculty	61	55	67	75	32	16	95.6%
5. Viet Nam War	138	63	44	15	3	1	88.7%
6. Program Recruited Women	41	27	48	75	57	45	93.2%
7. Commitment to ♀ Students Prior to T-IX	22	17	25	75	61	79	93.8%
8. Commitment to ♀ Students After Title IX	142	44	28	12	6	6	84.0%
9. Affirmative Action Pressure	134	62	34	18	7	4	88.0%
10. Pressure from Inst. with Same Program	162	48	30	18	1	1	88.0%
11. Pressure from Inst. with Different Pro.	168	44	28	9	1	0	86.3%
12. More ♀'s with High Admission Scores	47	16	17	31	29	6	66.5%
13. Pressure from Accrediting Source	148	27	24	11	2	1	84.0%
14. Pressure from National Association	116	64	40	33	11	1	88.7%
15. Acceptance of Female Students	16	15	23	78	109	78	97.6%
16. Females as Positive Role Models	4	9	12	70	116	118	99.0%

	None	Very Low	Low	Moderate	High	Very High	Percent Response Represented
17. Declining Enrollments	117	34	32	14	4	3	88.4%
18. Pressure from Women's Organizations	145	47	30	21	4	4	89.2%
19. Pressure from Faculty Organizations	162	41	26	12	7	1	86.3%
20. Pressure from Student Body Organizations	149	50	27	23	4	2	87.3%
21. Acceptance of Women in the Profession	1	1	10	68	143	103	99.0%
22. Result of the Women's Movement	34	27	27	89	75	21	90.6%
23. Positive Image of Women in the Media	14	17	26	96	119	40	96.4%
24. Positive Societal Sanctions	4	5	16	74	152	64	97.0%
25. Participation in Team Sports	131	43	26	13	3	2	80.4%
26. Successful Birth Control Methods	18	21	24	24	22	5	58.7%
27. Increased Financial Aid	46	30	36	72	41	13	84.5%
28. Improved Personal Supports	34	40	44	62	42	2	82.5%
29. Civil Rights Act of 1964	52	46	39	52	13	4	90.5%
30. Education Amendments '72 (Title IX)	94	61	48	51	13	4	89.6%
31. Women's Ed. Equity Act '76	104	57	48	41	12	2	88.4%
32. Career Ed. Incentive Act 1977	47	47	40	54	21	4	80.1%

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A further analysis according to the six professions and according to geographic region the U.S. indicated that the responses of deans in these sub-groups were similar to the aggregate responses. Analysis of percentage of women graduates by geographic region indicated that New England showed the greatest increase compared to other geographic regions of the U.S.

Implications

Women should continue to press for equal access to opportunities in all six professions, especially engineering, dentistry, architecture and medicine. The findings indicated that, though women are graduating in increasing numbers, the percentage of women graduates is not equal to men in any of these professions.

Women's groups for all professions should continue to recruit qualified women applicants since an increase in the number of qualified women applicants, as reported by the deans, was a major influencing factor. Accrediting agencies for all six professions should play a more active role in encouraging equal opportunity. This study suggested that such bodies had not assumed an active role in this regard. Media and women with professional degrees should continue to promote the efficacy of women being successful in these high-paying, high-demand professions since the culture and society, not legislative mandates, seem to affect changes in attitudes towards women's access to equal employment opportunity.

REFERENCES

[1]Francine Blau, "The Data on Women Workers, Past, Present and Future," in Ann H. Stromberg and Shirley Harkness, Eds., Women Working, Theories and Facts in Perspective, (Palo Alto, California: Mayfield Publishing Company, 1978), pp. 27-36.

[2]Michelle Patterson and Laurie Engleberg, "Women in Male-Dominated Professions," in Stromberg and Harknesss, Women Working, Theories and Facts in Perspective, p. 287.

[3]National Advisory Council on Women's Educational Programs, Title IX: The Half Full, Half Empty Glass, Washington, D.C.: Government Printing Office, 1981, p. 1.

[4]Kristen A. Moore and Isabel V. Sawhill, "Implications of Women's Employment for Home and Family Life, an Economic Appraisal," in Stromberg and Harkness, Women Working, Theories and Facts in Perspective, p. 30.

[5]Blau, Women Workirg, Theories and Facts in Perspective, p. 30.

[6]National Advisory Council on Women's Educational Programs, Title IX: The Half Full, Half Empty Glass, p. 8.

[7]Sandra Bem and Daryl Ben, Training the Woman to Know Her Place: The Social Antecedents for Women in the World of Work, (Pennsylvania Department of Education, 1973), p. 3.

[8]Women's Action Program, An Exploratory Study of Women in the Health Professions Schools, Washington, D.C.: Government Printing Office, 1976, p. 51.

[9]Patterson and Engleberg, Women Working, Theories and Facts in Perspective, p. 268.

[10]Diana B. Hiatt, Interview on May 24, 1982.

[11]Cynthia Fuchs Epstein, Women in Law, (New York: Basic Books, 1981), p. 13.

[12]Bem and Bem, Training the Woman to Know Her Place: The Social Antecedents for Women in the World of Work, p. 2.

[13] Edith Rose Kohlberg, "A Battleground of the Spirit," Madmoiselle, (May, 1966), p. 162.

[14] Bem and Ben, Training the Woman to Know Her Place: The Social Antecedents for Women in the World of Work, p. 2.